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Poster Session - Abstract

Benefit and Challenges of Using Polyolefins in Sports Applications

Laura B. Weaver[a*], Kyle Kummer, Jose M. Rego

Dow Chemical, 2301 N. Brazosport Blvd, Freeport, TX

Abstract

Polyolefin elastomers are used widely as rubbery impact modifiers of polypropylene and even polyamide, but are often overlooked when soft-touch, hand-grip, low taste (and odor), broad service temperature resistance, light weight, clarity, chemical resistance, dynamic flexural fatigue resistance, and breathability are required. Many of these attributes are sought after in Sporting Goods Applications - and with proper understanding and management of the challenges of converting from incumbent materials to polyolefin's it is possible for OEMs and consumers to reap the benefits with these easy to recycle, halogen-free, low Volatile Organic Component (VOC) materials. This poster will highlight several applications with a balanced approach to managing the benefits and challenges of using polyolefin based solutions versus traditionally used soft touch materials such as flexible polyvinyl chloride (F-PVC), styrene butadiene based elastomers (SBS and SEBS), and ethylene vinyl acetate (EVA).

Keywords: Benefits; challenges; polyolefins; EVA; neoprene

* Corresponding author. Tel.:+1 979-238-2174; fax: +1- +1 979-238-0235.
E-mail address: lbweaver@dow.com.

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